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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,140	08/19/2003	Jonathan Douglas Beard	TUC920030098US1	6482

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EXAMINER
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KIM, JUNG W

ART UNIT	PAPER NUMBER
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2132

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/01/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/644,140

Applicant(s)

BEARD ET AL.

Examiner

Jung Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>see enclosed</u> .  | 6) <input type="checkbox"/> Other: ____.                          |

### **DETAILED ACTION**

1. Claims 1-40 are pending.

#### ***Information Disclosure Statement***

2. The IDS submitted on 8/19/03 has been considered. An initialed copy is enclosed.

#### ***Claim Objections***

3. Claim 22 is objected to because of the following informalities: replace "connecting to an authorization module using a second password I order to" with "connecting to an authorization module using a second password in order to." Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 1-14 and 35-37 are not limited to tangible embodiments. In view of Applicant's disclosure, specification page 10, paragraph 30, the medium is not limited to tangible embodiments (e.g., a module may be implemented as a hardware circuit) and

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intangible embodiments (e.g. a module may be implemented in software). As such, the claim is not limited to statutory subject matter and is therefore non-statutory.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 3-5, 8, 10, 11, 22, 24-26, 29, 31, 32, 35 and 38, are rejected under 35 U.S.C. 102(b) as being anticipated by Krajewski, Jr. et al. USPN 5,590,199. (hereinafter Krajewski)

8. As per claim 1, Krajewski discloses an apparatus for authorizing remote access to a target system, the apparatus comprising:

a. a security module configured to selectively generate an encrypted key in response to a first password and establish a remote communication connection between a remote system and a target system in response to a third password; (col. 6:1-5 and lines 10-18) and

b. an authorization module configured to decrypt the encrypted key and determine the third password in response to authenticating a second password and identifying a user within an authorized user list. (6:5-10)

9. As per claim 3, Krajewski further discloses the third password is operable for only a selected period of time. Col. 5:16-19.

10. As per claim 4, Krajewski further discloses the authorization module is configured to communicate with a remote user connected over a secure communication link with the authorization module, and the authorization module is physically remote from the security module. Col. 5:14-24; figs. 5-7, Kerberos server.

11. As per claim 5, Krajewski further discloses a remote user is conditionally added to the authorized user list upon completion of a remote application process. Col. 5:40-45.

12. As per claims 8, 10 and 11, the rejections of claims 1 and 3-5 under 35 USC 102(b) as being anticipated by Krajewski is incorporated herein. In addition, Krajewski further discloses a login module configured to establish communications with a remote user in response to a personal password; (5:66) a confirmation module configured to determine whether the remote user is identified within an authorized user list (col. 5:66-6:5); a decryption module configured to decrypt an encrypted key provided by the remote user in response to identification of the remote user within the authorized user list, the encrypted key sent to the remote user by a target system in response to an access level password (6:1-5); a password module configured to derive a temporary

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password from a decrypted version of the encrypted key. (col. 6:6-10) The aforementioned cover the limitations of claims 8, 10 and 11.

13. As per claims 22 and 24-26, the rejections of claims 1 and 3-5 under 35 USC 102(b) as being anticipated by Krajewski is incorporated herein. In addition, Krajewski further discloses a method for authorized remote access to a target system, comprising retrieving an encrypted key from a target system accessed by way of a first password (col. 5:64-6:5); connecting to an authorization module using a second password in order to retrieve a third password associated with the encrypted key, the authorization module selectively decrypting the encrypted key in response to determining that a remote user is identified within an authorized user list (6:5-10); and logging into the target system using the third password. (6:11-18) The aforementioned cover the limitations of claims 22 and 24-26.

14. As per claims 29, 31 and 32, the rejections of claims 1 and 3-5 under 35 USC 102(b) as being anticipated by Krajewski is incorporated herein. In addition, Krajewski further discloses a method for authorized remote access to a target system, comprising sending an encrypted key to a remote system in response to authenticating a remote user using a first password (col. 5:64-6:5); connecting the remote user in response to the user entering a third password associated with the encrypted key, the third password provided to the remote user logged into an authorization module using a second password, the authorization module selectively decrypted the encrypted key in

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response to determining that the remote user is identified within an authorized user list.

(6:5-18) The aforementioned cover the limitations of claims 29, 31 and 32.

15. As per claim 35, it is a claim corresponding to claim 22, and it does not teach or define above the information claimed in claim 22. Therefore, claim 35 is rejected as being anticipated by Krajewski for the same reasons set forth in the rejection of claim 22.

16. As per claim 38, it is a claim corresponding to claim 22, and it does not teach or define above the information claimed in claim 22. Therefore, claim 38 is rejected as being anticipated by Krajewski for the same reasons set forth in the rejection of claim 22.

***Claim Rejections - 35 USC § 103***

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claim 2, 7, 9, 14-18, 20, 21, 23, 28, 30, 34, 36, 37, 39 and 40 are rejected under 35 USC 103(a) as being unpatentable over Krajewski.

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19. As per claim 2, the rejection of claim 1 under 35 USC 102(b) as being anticipated by Krajewski is incorporated herein. Although Krajewski does not expressly disclose the first password determines a set of commands available to the remote user logged into the target system, wherein the commands organized according to a plurality of hierarchical access levels, Kerberos authentication is conventionally utilized as a means to authenticate users into an open, distributed environment based on UNIX and/or Windows OS platforms. Moreover, in such environments a given logged-in user is restricted to a set of commands organized according to a plurality of hierarchical access levels based on the user's access level (a guest or default user has the lowest access level and an administrator or root user has the highest access level). Examiner takes Official notice of this teaching. Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made for the first password to determine a set of commands available to the remote user logged into the target system, the commands organized according to a plurality of hierarchical access levels. One would be motivated to do so to enable a secure authentication service on an open distributed environment. The aforementioned cover the limitations of claim 2.

20. As per claim 7, the rejection of claim 1 under 35 USC 102(b) as being anticipated by Krajewski is incorporated herein. Although Krajewski does not expressly disclose the security module and authorization module comprising a log module configured to log actions of the remote user communicating with the target system and the authorization module, it is notoriously well known in the art to combine an apparatus, which controls



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access to a service, with a logger that writes to a log file the actions by a remote user to log into a system. For example, UNIX monitors and maintains information regarding login actions of a remote user communicating with the OS. This facility enables audits to determine if an unscrupulous user is attempting to access the system. Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made for the security module and authorization module to comprise a log module configured to log actions of the remote user communicating with the target system and the authorization module to increase security by creating a paper trail for future audits on users access to a system as known to one of ordinary skill in the art. The aforementioned cover the limitations of claim 7.

21. As per claim 9, it is a claim corresponding to claims 2 and 8, and it does not teach or define above the information claimed in claims 2 and 8. Therefore, claim 9 is rejected as being unpatentable over Krajewski for the same reasons set forth in the rejections of claims 2 and 8.

22. As per claim 14, it is a claim corresponding to claims 7 and 8, and it does not teach or define above the information claimed in claims 7 and 8. Therefore, claim 14 is rejected as being unpatentable over Krajewski for the same reasons set forth in the rejections of claims 7 and 8.

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23. As per claims 15-18, the rejections of claims 1-5 are incorporated herein.

Krajewski does not disclose the authorization module is an authorization server.

However, it is well known in the art to utilize a server to perform the functionality of the authorization module of Krajewski as outlined in the claim 1 rejection above. For example in traditional Kerberos authentication (v. 4), when a client is authenticated by an authentication service, a ticket is communicated to the client, which includes an encrypted key value that can only be decrypted by a ticket-granting server. The client then communicates the encrypted key value as well as an authenticator to the ticket-granting server, whereby the ticket-granting server decrypts the encrypted key and returns a ticket to the client including a validating ticket. The client then uses the validating ticket to access the service. Examiner takes Official Notice of this teaching. It would be obvious to one of ordinary skill in the art at the time the invention was made for the authorization module to be an authorization server. One would be motivated to do so to enable secure authentication by a centralized server in a manner consistent with a proven authentication scheme such as Kerberos. The aforementioned cover the limitations of claims 15-18.

24. As per claim 20, it is a claim corresponding to claims 7 and 15, and it does not teach or define above the information claimed in claims 7 and 15. Therefore, claim 20 is rejected as being unpatentable over Krajewski for the same reasons set forth in the rejections of claims 7 and 15.

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25. As per claim 21, the rejection of claim 15 under 35 USC 103(a) as being unpatentable over Krajewski is incorporated herein. In addition, Krajewski discloses the target system comprises a data storage system. Col. 5:1-13; 6:15-17.

26. As per claim 23, it is a claim corresponding to claims 2 and 22, and it does not teach or define above the information claimed in claims 2 and 22. Therefore, claim 23 is rejected as being unpatentable over Krajewski for the same reasons set forth in the rejections of claims 2 and 22.

27. As per claim 28, it is a claim corresponding to claims 7 and 22, and it does not teach or define above the information claimed in claims 7 and 22. Therefore, claim 28 is rejected as being unpatentable over Krajewski for the same reasons set forth in the rejections of claims 7 and 22.

28. As per claim 30, it is a claim corresponding to claims 2 and 29, and it does not teach or define above the information claimed in claims 2 and 29. Therefore, claim 30 is rejected as being unpatentable over Krajewski for the same reasons set forth in the rejections of claims 2 and 29.

29. As per claim 34, it is a claim corresponding to claims 7 and 29, and it does not teach or define above the information claimed in claims 7 and 29. Therefore, claim 34

is rejected as being unpatentable over Krajewski for the same reasons set forth in the rejections of claims 7 and 29.

30. As per claim 36, it is a claim corresponding to claims 2 and 35, and it does not teach or define above the information claimed in claims 2 and 35. Therefore, claim 36 is rejected as being unpatentable over Krajewski for the same reasons set forth in the rejections of claims 2 and 35.

31. As per claim 37, it is a claim corresponding to claims 7 and 35, and it does not teach or define above the information claimed in claims 7 and 35. Therefore, claim 37 is rejected as being unpatentable over Krajewski for the same reasons set forth in the rejections of claims 7 and 35.

32. As per claim 39, it is a claim corresponding to claims 2 and 38, and it does not teach or define above the information claimed in claims 2 and 38. Therefore, claim 39 is rejected as being unpatentable over Krajewski for the same reasons set forth in the rejections of claims 2 and 38.

33. As per claim 40, it is a claim corresponding to claims 7 and 38, and it does not teach or define above the information claimed in claims 7 and 38. Therefore, claim 40 is rejected as being unpatentable over Krajewski for the same reasons set forth in the rejections of claims 7 and 38.

34. Claims 6, 13, 19, 27 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krajewski in view of Dauerer et al. USPN 5,627,967. (hereinafter Dauerer)

35. As per claim 6, the rejection of claim 1 under 35 USC 102(b) as being anticipated by Krajewski is incorporated herein. Krajewski does not disclose the apparatus further comprising an updated module configured to compare the authorized user list to a master list of personnel potentially authorized for remote access to the target system and to selectively remove remote users from the authorized user list not found on the master list. Dauerer discloses an access controller wherein a master list stores a list of authorized users, and changes by an administrator to a master list are promulgated to local access lists. Col. 5:16-6:25; 8:32-38. It would be obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Krajewski such that the apparatus further comprises an updated module configured to compare the authorized user list to a master list of personnel potentially authorized for remote access to the target system and to selectively remove remote users from the authorized user list not found on the master list. One would be motivated to do so to provide a control arrangement that will automatically monitor and update all lists of authorized users. Dauerer, 3:1-4. The aforementioned cover the limitations of claim 6.

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36. As per claim 13, it is a claim corresponding to claims 6 and 8, and it does not teach or define above the information claimed in claims 6 and 8. Therefore, claim 13 is rejected as being unpatentable over Krajewski and Dauerer for the same reasons set forth in the rejections of claims 6 and 8.

37. As per claim 19, it is a claim corresponding to claims 6 and 15, and it does not teach or define above the information claimed in claims 6 and 15. Therefore, claim 19 is rejected as being unpatentable over Krajewski and Dauerer for the same reasons set forth in the rejections of claims 6 and 15.

38. As per claim 27, it is a claim corresponding to claims 6 and 22, and it does not teach or define above the information claimed in claims 6 and 22. Therefore, claim 27 is rejected as being unpatentable over Krajewski and Dauerer for the same reasons set forth in the rejections of claims 6 and 22.

39. As per claim 33, it is a claim corresponding to claims 6 and 29, and it does not teach or define above the information claimed in claims 6 and 29. Therefore, claim 33 is rejected as being unpatentable over Krajewski and Dauerer for the same reasons set forth in the rejections of claims 6 and 29.

40. Claim 12 is rejected under 35 USC 103(a) as being unpatentable over Krajewski in view of Jain et al. USPN 7,089,265 (hereinafter Jain).

41. As per claim 12, the rejection of claim 8 under 35 USC 102(b) as being anticipated by Krajewski is incorporated herein. Krajewski discloses an authorized remote user is conditionally added to the authorized user list upon completion of a remote application process (col. 5:40-45), but does not disclose adding the remote user to the authorized user list in response to approval from at least two supervisors. Modification of system status in response to approval of at least two supervisors is a well-known technique in the art. For example, Jain discloses only allowing data objects in a database to be modified pending approval by two supervisors. Col. 11:38-56. It would be obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Krajewski such that the remote user is added to the authorized user list in response to approval from at least two supervisors. One would be motivated to do so to ensure more stringent oversight over who are allowed access to the system. The aforementioned cover the limitations of claim 12.

### ***Communications Inquiry***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jung W. Kim whose telephone number is 571-272-3804. The examiner can normally be reached on M-F 9:00-5:00.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Jk  
February 23, 2007



Benjamin F. Lanier  
Examiner AU 2132